

**Commonwealth of Kentucky  
Environmental and Public Protection Cabinet  
Department for Environmental Protection  
Division for Air Quality  
803 Schenkel Lane  
Frankfort, Kentucky 40601  
(502) 573-3382**

**AIR QUALITY PERMIT  
Issued under 401 KAR 52:040**

**Permittee Name:** Harlan Appalachian Regional Hospital

**Mailing Address:** 81 Ballpark Road  
Harlan, KY 40831

**Source Name:** Harlan Appalachian Regional Hospital  
**Mailing Address:** Same as above

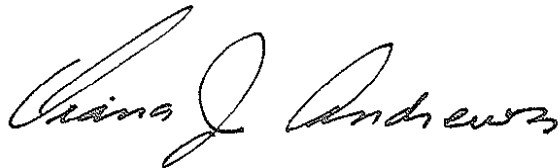
**Source Location:** Same as above

**Permit Number:** S-06-195  
**Source A. I. #:** 38361  
**Activity #:** APE20060001  
**Review Type:** State-Origin  
**Source ID #:** 21-095-00026

**Regional Office:** Hazard Regional Office  
233 Birch Street, Suite 2  
Hazard, KY 41701

**County:** Harlan

**Application**  
**Complete Date:** August 30, 2006  
**Issuance Date:** October 16, 2006  
**Revision Date:**  
**Expiration Date:** October 16, 2016



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**John S. Lyons, Director  
Division for Air Quality**

## **SECTION A - PERMIT AUTHORIZATION**

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the construction and operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first submitting a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:040, State-origin permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining other permits, licenses, or approvals that may be required by the Cabinet or other federal, state, or local agencies.

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS**

**Emission Units: (02 and 03)**

**INDIRECT HEAT EXCHANGER**

**Description:**

Two (2) – Cleaver Brooks CB 200-150 oil fired units	
Fuel:	Fuel Oil No. 2
Maximum continuous rating:	6.28 mmBTU/hr each
Construction commenced:	1995
Control Equipment:	None

**APPLICABLE REGULATIONS**

401 KAR 59:015, *New Indirect Heat Exchangers* - applies to the particulate matter and sulfur dioxide emissions for each indirect heat exchanger commenced on or after April 9, 1972

**1. Operating Limitations:**

None

**2. Emission Limitations:**

- a) Pursuant to 401 KAR 59:015, Section 4(1)(a), emissions of particulate matter (PM) from the combustion of fuel oil of emission points 02 and 03 shall not exceed 0.53 lb/mmBtu actual heat input, based on a three-hour average.
- b) Pursuant to 401 KAR 59:015, Section 4(2), emissions from each of 02 and 03 shall not exceed 20% opacity based on a six minute average, except that a maximum of 40% opacity based on a six minute average shall be permissible for not more than six consecutive minutes in any 60 consecutive minutes during cleaning the fire-box or blowing soot and except for emissions during building a new fire for the period required to bring the boiler up to operating conditions provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations.
- c) Pursuant to 401 KAR 59:015, Section 5(1)(c), emissions of sulfur dioxide from each of 02 and 03 from the combustion of fuel oil shall not exceed 2.73 lb/mmBtu actual heat input, based on a 24-hour average.

**Compliance Demonstration Method:**

- a) Compliance with the particulate emission limit is demonstrated when burning fuel oil, based on an AP-42 emission factor of 2 lbs PM/1000 gallons and a fuel heat capacity of 140,000 Btu per gallon.
- b) For compliance with the opacity limitation when burning No. 2 fuel oil, refer to **5. Recordkeeping Requirements.**
- c) Compliance with the sulfur dioxide limit is demonstrated when burning fuel oil if the lbs of SO<sub>2</sub> per mmBtu is less than the limit, to be determined by the permittee based on an AP-42 emission factor of 142 x %S (lb/1000 gal), the fuel oil sulfur content S (%), and a fuel heat capacity of 140,000 Btu per gallon. Refer to **Monitoring Requirements 4.a** for determination of fuel oil sulfur content.

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**3. Testing Requirements:**

Pursuant to 401 KAR 59:005 Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in 401 KAR 50:015 shall be conducted as required by the Division.

**4. Monitoring Requirements:**

The permittee shall monitor and maintain records of the following information:

- a) The sulfur content of fuel oil burned in emission points 02 and 03. The sulfur content may be determined by fuel sampling and analysis or by fuel supplier certification at the time of fuel purchase.
- b) The type and monthly amount of fuel fired in each unit (gallons/per month for fuel oil), and the monthly hours of operation of each boiler.
- c) The permittee shall perform a qualitative visible observation of the opacity of emissions once per week from each respective emission unit stack upon stabilization of the emission unit after startup and maintain a log of the observation. If visible emissions from a stack are seen, then EPA Reference Method 9 shall be used to determine the opacity, and an inspection shall be initiated for any necessary repairs.

**5. Recordkeeping Requirements:**

- a) Records shall be maintained of the visual observations of stack emissions, any EPA Reference Method 9 test performed, and any necessary repairs made as a result of not meeting an emission limitation.
- b) The permittee shall maintain records in accordance with **4. Monitoring Requirements.**
- c) During periods of each boiler startup, shutdown or malfunction, a daily (calendar day) log of the following information shall be kept:
  - i. Whether any air emissions were visible from the boiler stack.
  - ii. Whether the visible emission were normal for the process.
  - iii. The color of the emissions and whether the emissions were light or heavy.
  - iv. The cause of the abnormal visible emissions.
  - v. Any corrective actions taken.

**6. Reporting Requirements:**

See Section C, General Conditions C.1, C.2 and F.2.

## **SECTION C - GENERAL CONDITIONS**

### **A. Administrative Requirements**

1. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:040, Section 3(1)(b) and is grounds for enforcement action including but not limited to the termination, revocation and reissuance, or revision of this permit.
2. This permit shall remain in effect for a fixed term of ten (10) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division. [401 KAR 52:040, Section 15]
3. Any condition or portion of this permit, which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit  
[Material incorporated by reference by 401 KAR 52:040, Section 1a, 11].
4. Pursuant to materials incorporated by reference by 401 KAR 52:040, this permit may be revised, revoked, reopened, reissued, or terminated for cause. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance shall not stay any permit condition [Material incorporated by reference by 401 KAR 52:040, Section 1a, 4,5].
5. This permit does not convey property rights or exclusive privileges [Material incorporated by reference by 401 KAR 52:040, Section 1a, 8].
6. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:040 Section 11(3)].

### **B. Recordkeeping Requirements**

1. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of at least five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [401 KAR 52:040 Section 3(1)(f)].
2. The permittee shall perform compliance certification and recordkeeping sufficient to assure compliance with the terms and conditions of the permit. Documents, including reports, shall be certified by a responsible official pursuant to 401 KAR 52:040, Section 21.

## **SECTION C - GENERAL CONDITIONS (CONTINUED)**

### **C. Reporting Requirements**

1. a. In accordance with the provisions of 401 KAR 50:055, Section 1, the permittee shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
  - i. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
  - ii. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.
- b. The permittee shall promptly report deviations from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Reporting Requirement condition 1. a. above), the probable cause of the deviation, and corrective or preventive measures taken; to the Regional Office listed on the front of this permit within 30 days. Other deviations from permit requirements shall be included in the semiannual report [Material incorporated by reference by 401 KAR 52:040, Section 5, 3].
2. The permittee shall furnish information requested by the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with the permit [Material incorporated by reference by 401 KAR 52:040, Section 1a, 6].
3. Summary reports of monitoring required by this permit shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation.

The summary reports are due January 30th and July 30th of each year. All deviations from permit requirements shall be clearly identified in the reports. All reports shall be certified by a responsible official pursuant to 401 KAR 52:040, Section 21.

### **D. Inspections**

1. In accordance with the requirements of 401 KAR 52:040, Section 3(1)(f) the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times. Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency:
  - a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation.

## **SECTION C - GENERAL CONDITIONS (CONTINUED)**

- b. To access and copy any records required by the permit.
- c. Inspect, at reasonable times, any facilities, equipment (including monitoring and pollution control equipment), practices, or operations required by the permit.
- d. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.

### **E. Emergencies/Enforcement Provisions**

- 1. The permittee shall not use as defense in an enforcement action, the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Material incorporated by reference by 401 KAR 52:040, Section 1a, 3].
- 2. An emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
  - a. An emergency occurred and the permittee can identify the cause of the emergency;
  - b. The permitted facility was at the time being properly operated;
  - c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
  - d. The permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division within two working days after the time when emission limitations were exceeded due to the emergency and included a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
- 3. Emergency provisions listed in General Condition E.2 are in addition to any emergency or upset provision contained in an applicable requirement [401 KAR 52:040, Section 22(1)].
- 4. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof. [401 KAR 52:040, Section 22(2)].

### **F. Compliance**

- 1. Periodic testing or instrumental or non-instrumental monitoring, which may consist of record keeping, shall be performed to the extent necessary to yield reliable data for purposes of demonstration of continuing compliance with the conditions of this permit. For the purpose of demonstration of continuing compliance, the following guidelines shall be followed:
  - a. Pursuant to 401 KAR 50:055, General compliance requirements, Section 2(5), all air pollution control equipment and all pollution control measures proposed by the application in response to which this permit is issued shall be in place, properly maintained, and in operation at any time an affected facility for which the equipment and measures are designed is operated, except as provided by 401 KAR 50:055, Section 1.

**SECTION C - GENERAL CONDITIONS (CONTINUED)**

- b. All the air pollution control systems shall be maintained regularly in accordance with good engineering practices and the recommendations of the respective manufacturers. A log shall be kept of all routine and nonroutine maintenance performed on each control device.
  - c. A log of the monthly raw material consumption and monthly production rates shall be kept available at the facility. Compliance with the emission limits may be demonstrated by computer program, spread sheets, calculations or performance tests as may be specified by the Division [401 KAR 50:055, Section 2].
2. Pursuant to 401 KAR 52:040, Section 19, the permittee shall certify compliance with the terms and conditions contained in this permit by January 30th of each year, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an approved alternative) to the Regional Office listed on the front of this permit in accordance with the following requirements:
  - a. Identification of the term or condition;
  - b. Compliance status of each term or condition of the permit;
  - c. Whether compliance was continuous or intermittent;
  - d. The method used for determining the compliance status for the source, currently and over the reporting period, and
  - e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.
  - f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications shall be mailed to the following addresses:

Division for Air Quality	Division for Air Quality
Hazard Regional Office	Central Files
233 Birch Street	803 Schenkel Lane
Hazard, KY 41701	Frankfort, KY 40601-1403
3. Permit Shield - A permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of this permit shall be considered compliance with all:
  - (a) Applicable requirements that are included and specifically identified in this permit; or
  - (b) Non-applicable requirements expressly identified in this permit [401 KAR 52:040, Section 11]